

REMARKS

Reconsideration of the application and allowance of all claims pending herein is respectfully requested in view of the remarks below. Claims 1, 2, 5, 7, 8, 11, 12 and 15 are presently pending and under consideration.

Drawing Objections:

The Office Action objects to the drawings since it is alleged that the volume and the position of the at least one recess depicted in the figures does not vary in distance relative to the upper face of the golf club. Claim 1 recites that the at least one recess varies in distance relative to the upper face. However, this claim does not recite that the at least one recess varies in vertical distance, but merely that it varies relative to the upper face. Thus, a review of FIGS. 8a-8c reveals that the at least one recess varies in longitudinal dimension relative to the upper face and the variation recited is therefore believed to be depicted in these figures. Accordingly, this objection is believed to be overcome.

Rejections Under 35 U.S.C. § 112:

Claims 1-2, 5, 7-8, and 11-12 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention. Specifically, claim 1 is alleged to be indefinite because the phrase “in that the at least one of a volume and a position of said at least one recess inside said upper wall varies in distance relative to said upper face” is alleged to be indefinite.

It is respectfully submitted that it would be clear to one of ordinary skill in the art that the volume and/or the position of the at least one recess varies in distance relative to the upper face. Specifically, such variation could be in any dimension, i.e. horizontally, vertically or in a thickness direction of the club.

Also, claim 7 has been rejected since the terms “such as” are alleged to be indefinite. This claim has been amended to remove the “such as” language. Claim 15 has been added to incorporate the material removed from claim 7. Thus, claims 7 and 15 are believed to overcome this rejection.

Rejections Under 35 U.S.C. § 103:

Claims 1-2, 5, 8 and 11-12 stand rejected under 35 U.S.C. § 103(a) as being obvious over Peters (U.S. Patent No. 6,093,112) in view of Besnard (U.S. Patent No. 5,643,112). Specifically, it is alleged that it would be obvious to modify the recesses for receiving inserts in the lower wall of the club in Peters to place such recesses in an upper wall and to vary the volume and the position of the recesses from one iron to another.

Claim 1 of the present application recites a set of golf club irons, each iron of the set having a head, the head having a rear face, the rear face having a cavity bounded by a plurality of walls, and wherein the plurality of walls includes at least one lower wall forming a sole and an upper wall. The upper wall has a plurality of faces including a rear face, an upper face, a lower face facing a cavity and a plurality of lateral faces. The head includes at least one recess in the upper wall and at least one recess opens onto a single face of the upper wall, away from the upper and lower faces. The volume and/or a position of the at least one recess inside the upper wall varies in distance relative to the upper face from one iron to another within the set to cause a center of gravity of each head to vary in distance relative to the upper face from one iron to another.

The following are quotations from MPEP 2143.03:

“To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.” *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

“All words in a claim must be considered in judging the patentability of that claim against the prior art.” *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

Peters discloses a set of irons which includes 13 irons divided into four groups, i.e., a first group 156, a second group 158, a third group 160, and a fourth group 162 (col. 12, lines 26-28). Peters further discloses that an exemplary golf club from the second group 158 includes “a first weight insert 174 and a second weight insert 176 that are attached to the main body 77 of the club head” (col. 13, lines 42-44) and that these weight inserts are “positioned below the rear cavity” (col. 13, line 45). Peters also discloses the possibility that “weight inserts 174 and 176 are replaced by a single weight insert 178 that extends from the heel portion 80 to the toe portion 82 of the club head” (col. 13, lines 52-54).

Although Peters generally provides that vertical positions of the centers of gravity rise from the number 1 iron to the pitching wedge (column 15, lines 40 and 41), it does not teach that this is accomplished by varying at least one of a volume and a position of at least one recess formed in the upper wall of the club head from one iron to another within the set. Instead, Peters discloses at least one weight insert formed in the lower wall, wherein “the second weight insert 176 is positioned near the toe portion 82 such that it has a shape and position that preferably mirrors the shape and position of the weight insert 174” (col. 13, lines 46-48). In other words, instead of disclosing a recess having its volume or position varied throughout the set of clubs to cause a center of gravity to vary among the members of the set of clubs. Peters sets forth that weight inserts 174 and 176 or 178 are provided in club heads making up only a specific sub-set or grouping of irons (second group 158) within the set. Further, Peters does not teach clubs heads having a recess, since after the inserts are attached to the club there is no opening or cavity at the location of such inserts.

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Besnard discloses a golf club iron wherein “the upper edge portion includes an elongated recess 3... which increases in the direction of the toe of the club head” (col. 3, lines 34-36). However, even though Besnard discloses an iron having at least one recess in the upper wall, it fails to teach that at least one of a volume and a position of such a recess varies from one iron to another within the set, as is recited in claim 1. Thus, it is submitted that claim 1 is patentable over the art of record at least because the applied references, neither individually nor in combination, teach or suggest novel and non-obvious recitations set forth in claim 1, namely “[a] set of golf club irons, each iron of said set having a head, ... wherein said head comprises at least one recess in the upper wall and ... wherein at least one of a volume and a position of said at least one recess ... varies ... from one iron to another within said set...”. Peters

Moreover, it is respectfully submitted that there is no suggestion or motivation disclosed to combine these references and further such combination would make Peters unsatisfactory for its intended purpose. The prior art must suggest the desirability of a combination of such references. MPEP §2143.003, *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Further, there is no suggestion or motivation if such a combination would make the prior art invention unsatisfactory for its intended purpose. MPEP § 2143.03, *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

The intended purpose of Peters stems from the principle that “the performance of the specific clubs in a set may be adversely affected if all of the clubs include the same basic design characteristics” (col. 2, line 49-51). Thus in accordance with its intended purpose, Peters provides that “there is therefore a need for a correlated set of golf clubs wherein each club or a group of clubs in the set utilizes technology that is specifically designed to promote the playing needs of that particular type of club” (col. 3, lines 11-14). As described above, Peters teaches that a “set 30 of irons includes thirteen irons that are divided into four groups including a first group 156, a second group 158, a third group 160 and a fourth group 162” (col. 12, lines 26-28). Peters sets forth specific examples of the different design characteristics of each of the above-identified groups of irons. For instance, an exemplary golf club from second group 158 includes

“a first weight insert 174 and a second weight insert 176 that are attached to the main body 77 of the club head” (col. 13, lines 42-44). Peters further discloses that an exemplary club head of the third group is constructed so that “[t]he rear cavity 130 preferably has a volume that is smaller than the volume of the rear cavity 94 in the club head 76 of the second group” (col. 10, lines 60-62) whereby “[t]he distribution of mass to the periphery of the club head 108 is thus limited to ...concentrate more mass behind the ball and improve the feel and control of the club head” (col. 10, lines 62-65). An exemplary club head 180 from the fourth group “is a blade-type club head having a unitary main body” (col. 14, lines 35 and 36) wherein the weight distribution is “selected to concentrate more mass in a central region behind the strike surface 184, preferably immediately behind the theoretical point of impact with a golf ball” (col. 14, lines 39-32).

It is apparent from the foregoing that Peters teaches a set of irons having different sub-sets or groups of clubs wherein each sub-set utilizes a distinct technology specifically designed to promote the unique playing needs of that particular sub-set of clubs. Thus, it would not be obvious, as suggested in the Office Action, to modify the entire set of irons of Peters in view of the patent of Besnard to have at least one recess in the upper wall instead of the weight insert in the lower wall wherein at least one of a volume and a position of said at least one recess varies from one iron to another within the set, at least because if recesses corresponding to a first weight insert 174 and a second weight insert 176 are formed in the entire set of irons rather than only in the second group 158 of the set, the proposed modification would render Peters unsatisfactory for its intended purpose, which is to provide a correlated set of golf clubs wherein each club or a group of clubs in the set utilizes technology that is specifically designed to promote the playing needs of that particular type of club. Those skilled in the art will appreciate that the technology of Peters' second group 158 containing club heads with weight inserts and corresponding recesses is geared for the purpose of lowering the center of mass of the club heads and distributing it toward the periphery thereof. Those skilled in the art will also appreciate that the technology pertaining to e.g., Peters' fourth group is intended for a different purpose of allowing the club heads of that group to concentrate more mass in a central region behind the strike surface 184, preferably immediately behind the theoretical point of impact with a golf ball and is

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accordingly different from the technology of the second group. Thus, claim 1 is submitted to be patentable over the cited art of record also because the proposed modification of Peters in view of Besnard will render Peters unsatisfactory for its intended purpose, which is to provide a correlated set of golf clubs wherein each club or a group of clubs in the set utilizes technology that is specifically designed to promote the playing needs of that particular type of club.

Moreover, it is improper to combine references where the references teach away from their combination. MPEP § 2145 X.D.2., *In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir.1983). The use of weight inserts in Peters teaches away from the use of recesses as recited in claim 1 of the present application. Specifically, the use of inserts in the golf club irons is the opposite of using recesses since the inserts add material and thus weight to a club while the recesses omit such material and thereby remove weight from the club. Thus, there would be no suggestion nor motivation for one skilled in the art to add a recess as in Besnard to the iron in Peters since Peters teaches away from the use of such recess by instead adding inserts to the irons disclosed therein.

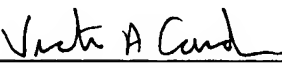
Thus, claim 1 is respectfully submitted to patentably distinguish over Peters in view of Besnard. The dependent claims are believed to be non-obvious for at least the same reasons as the base claim and also in view of their own distinguishing recitations. Accordingly, the claims of the present application are believed to be allowable.

CONCLUSION

In view of the above amendments and remarks, applicants respectfully request allowance of all claims pending herein.

If a telephone conference would be of assistance in advancing prosecution of the subject application, the Examiner is invited to telephone the undersigned attorney at the telephone number provided.

Respectfully submitted,



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